

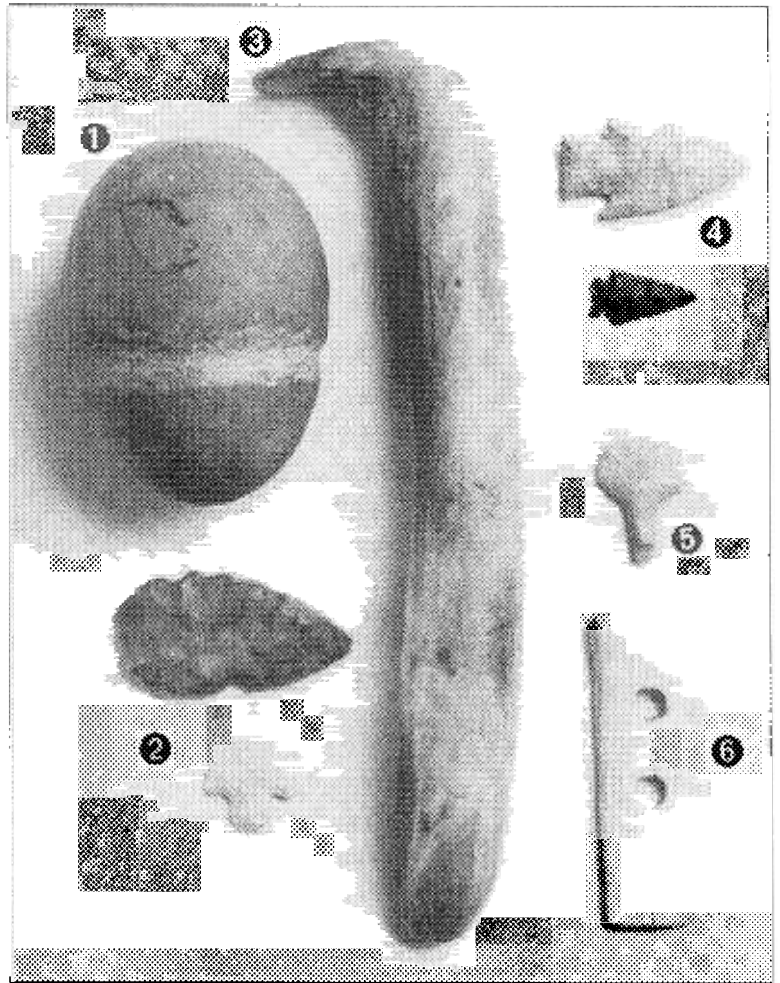
LESSON 3B—NARRATIVE: WHAT NON-STONE MATERIALS WERE USED FOR ANCIENT TECHNOLOGY?

Bone, antler, and shell were non-stone materials used for ancient technology.

Do you ever wonder how people of the past made their clothes without steel needles, thread, or a sewing machine? Ancient people manufactured their clothing, moccasins, containers, and tipi coverings with **bone needles** and **awls**. They used their awls, which were about the size of a modern embroidery needle, to pierce holes in animal hides. Their bone needles, about the size of toothpicks, had a tiny hole in one end just like modern sewing needles. They used **sinew**—animal tendons—and plant twine as thread. One container ancient people made was a **parfleche**. A parfleche was a hide container for storing dried food, clothing, and personal belongings. It was made by sewing together pieces of animal hide, especially from bison.

Ancient people used the fibers of sagebrush, cedar, yucca, and other plants to make string and **cordage**. They used cordage in many ways, just like a modern ball of string. They used it to tie things together and to make **baskets**. Archaeologists rarely find ancient string and cordage in Montana archaeological sites. Sometimes they do find small cordage and basket fragments in caves and rockshelters like Pictograph Cave near Billings in southeastern Montana.

Some ancient people made their fishhooks and fishing harpoons out of bone. These artifacts are not very common in Montana. Here, people caught fish with **nets** and **weirs**.



(Weirs are fences or other enclosures set in a stream to catch fish.) Some Indian tribes—like the Blackfeet—do not like to eat much fish. The ancient people here may have shared this dietary preference. This might explain the absence of fish bones in many Montana archaeological sites.

Ancient people used shaped bone tools to butcher animals and to process hides. Bone was also the material they used to make beads for necklaces. They drilled the holes in their beads with stone drills. They carved, or

Prehistoric people used stone and non-stone organic materials as tools for different activities. Can you guess how the bone tools (#3 and #6 in this group) were used? Courtesy Montana Historical Society.

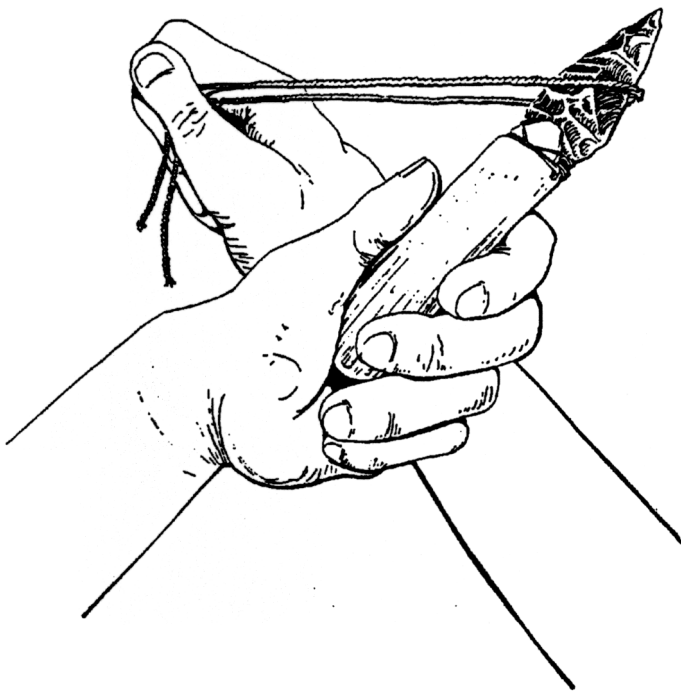
Answer: #3) bone handle for a stone scraper used for working hides. #6) bone shaft straightener—wooden arrow shafts were pulled through the holes to remove curves and bends.



This prehistoric woman uses a slender bone with a tapered tip as an "awl" to make holes in leather for sewing. *Courtesy Kootenai National Forest.*

incised, some beads and other bone ornaments with abstract designs. At Pictograph Cave, archaeologists have found bone gaming pieces and a small carved bone turtle **effigy**, or figure. The game pieces are believed to have been used like we use dice today.

Montana's prehistoric people also used shell to make decorative items. They did not travel to the coast to get shells. Instead, they obtained them in **trade** with other tribes who lived closer to the ocean. Archaeologists have found shell beads and ornaments in Montana sites.



A chipped stone blade or point could be hafted to a bone handle to make a knife for cutting cordage made of twisted plant fibers. *Courtesy Kootenai National Forest.*

Ancient people used antler and horn just like they did bone. They used tools made of deer and elk antler for flintknapping, as digging sticks, and as handles for some stone tools like axes and knives. They also used ladles, spoons, bowls, and cooking tongs made of wood and bison horn.

Many of these non-stone artifacts were **perishable**, that is, they were made of **organic** materials—like plants, wood, bone, leather, and antler—that decompose quickly if exposed to air. For this reason, non-stone artifacts are rarely found in Montana. Wind, rain, snow, and the chemical agents in soil cause organic materials to decay over a period of years or tens of years. In Montana, archaeologists have mostly found non-stone artifacts in caves and rockshelters, where they are protected from the weather and do not decay as rapidly. Even so, archaeologists usually only find scraps and pieces of baskets, twine rope, and hide clothing in these sites. In museums, perishable artifacts must be kept in special, temperature-controlled display cases and storage boxes. This prevents further decay and deterioration of these organic artifacts.

Archaeologists get excited when they find leather, wood, antler, or bone artifacts preserved in the archaeological record. Sites with perishable artifacts usually give us more information than sites where only stone tools are found. Finding artifacts made of organic material provides us with a better picture of the range of technologies ancient people used. As archaeologists gain more detail about ancient daily life, they can provide a more complete story of Montana's early peoples.

LESSON 3B—VOCABULARY: WHAT NON-STONE MATERIALS WERE USED FOR ANCIENT TECHNOLOGY?

awl _____

baskets _____

cordage _____

effigy _____

incised _____

nets _____

organic _____

parfleche _____

perishable _____

sinew _____

trade _____

weirs _____

LESSON 3B—ARCH ACTIVITY: TOOL TIME II (ANTLER AND BONE)

ACTIVITY

Follow Lesson 3A—Arch Activity (Tool Time) using antler and bone tools from the Technology Tool Kit (or pictures of them if the kit is unavailable). Follow all procedures, substituting antler and bone tools for the stone tools.

For the enclosed drawings:

Group 1 = hunting tools (atlatl fore-shaft, bone-handle knife, bone fish-hook)

Group 2 = butchering/hide working tools (bone-handle scraper, bone beamer, bone flesher, bone-handle knife)

Group 3 = knapping tools (antler hard-hammer, antler-tine pressure-flaker, hide pad, hide pad)

Group 4 = manufacturing tools (bone awls, bone needles, pitch stick, sinew)

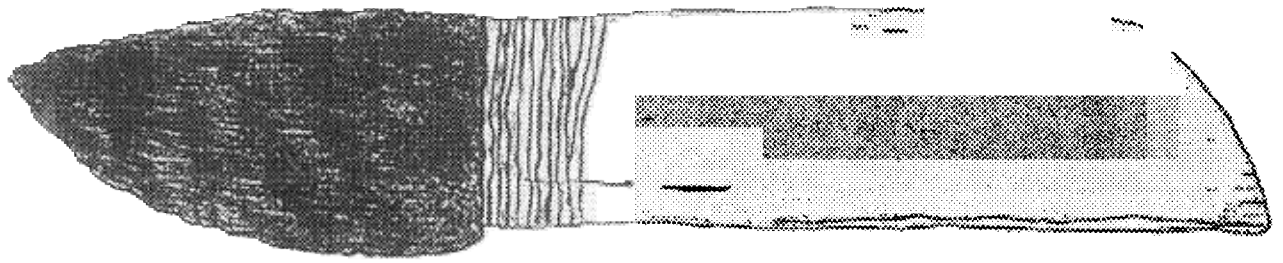
EXTENSION

3–8:

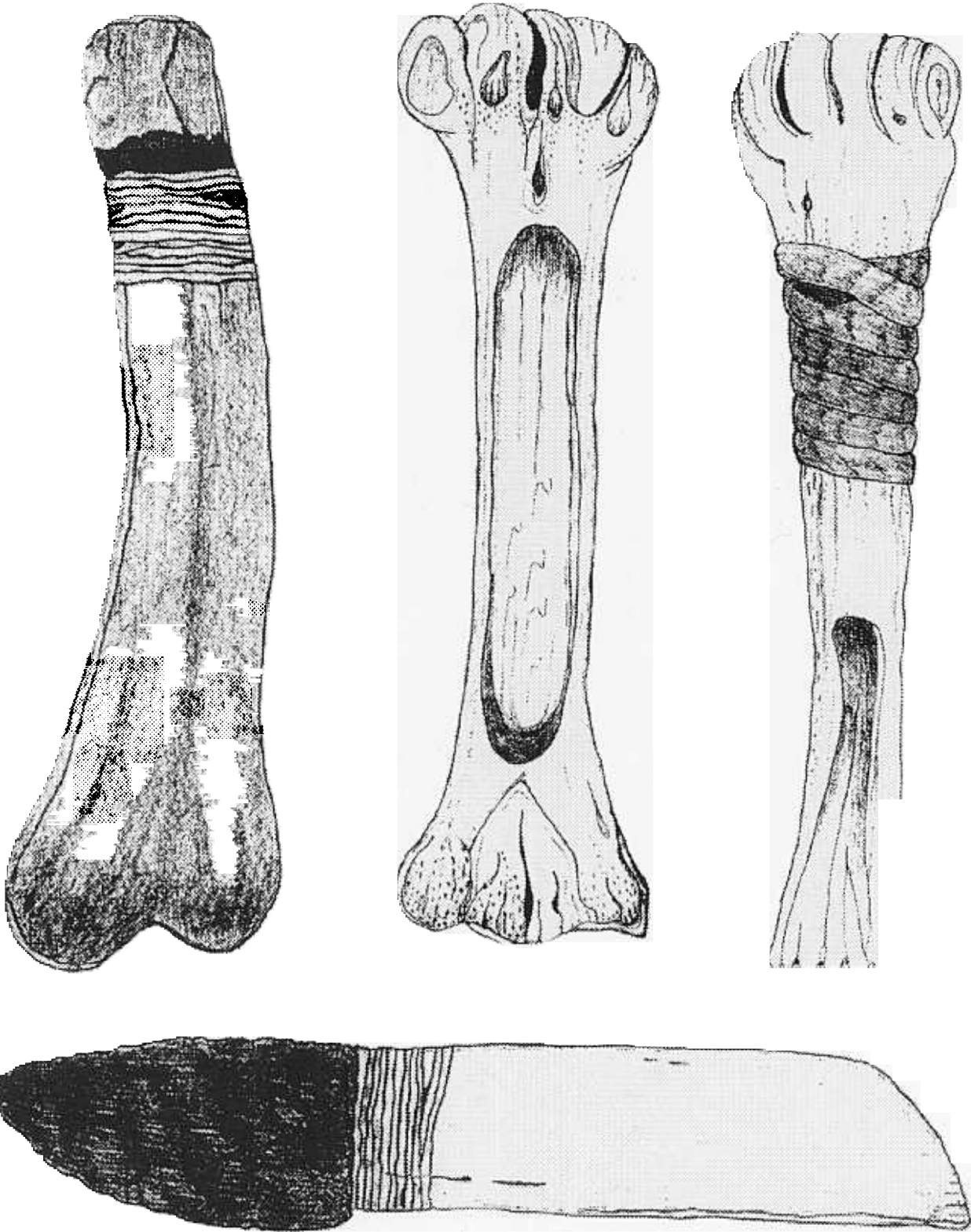
- Research vocabulary

See: Lesson 3B—Vocabulary

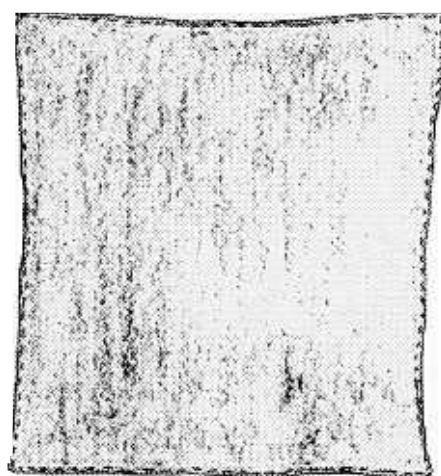
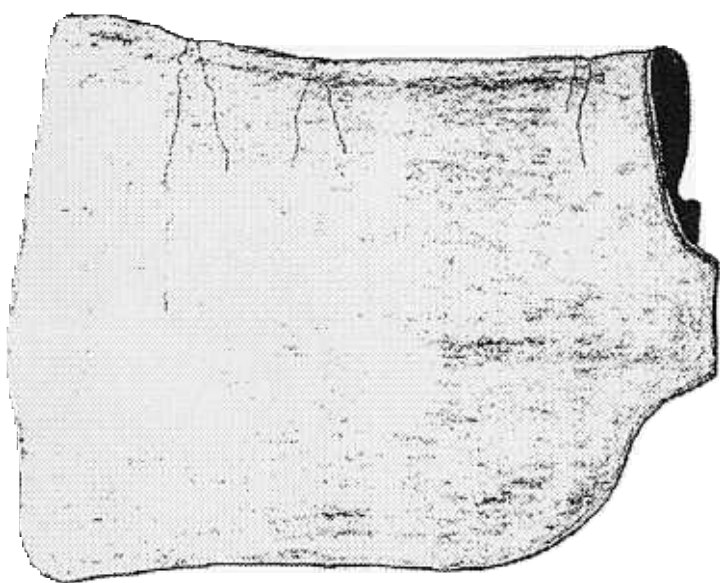
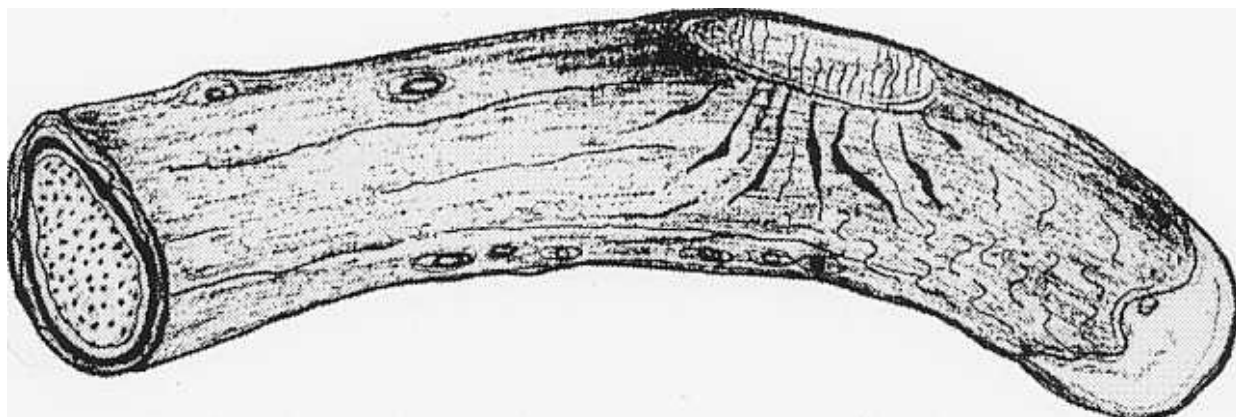
LESSON 3B-4/ACTIVITY: TOOL TIME II
GROUP 1



LESSON 3B-4/ACTIVITY: TOOL TIME II
GROUP 2



LESSON 3B-4/ACTIVITY: TOOL TIME II
GROUP 3



LESSON 3B-4/ACTIVITY: TOOL TIME II
GROUP 4

